UNITED STATES PATENT AND TRADEMARK OFFICE

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10/814,431	03/30/2004	Alexei Kojenov	SJO920030085US1	5731

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EXAMINER
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ART UNIT	PAPER NUMBER
2161	

NOTIFICATION DATE	DELIVERY MODE
02/08/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

krvuspto@ipmatters.com

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
   Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 November 2010*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6,10-12,37-41,45-52 and 56-59* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-3,5,6,10-12,37-41,45-52 and 56-59* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
      Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
      Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This action is issued in response to applicant's amendment filed November 19,

2010.

2.   Claims 1-3, 5-6, 10-12, 37-41, 45-52, and 56-59 are presented. No claim added

and claims 4, 7-9, 13-36, 42-44, and 53-55 are cancelled.

3.   Claims 1-3, 5-6, 10-12, 37-41, 45-52, and 56-59 are pending.

4.   Applicant's arguments filed November 19, 2010, have been fully considered but

they are not persuasive.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 1-3, 5-6, 11, 37-43, 46, 48-52, and 57 are rejected under 35 U.S.C.**

103(a) as being unpatentable over Cannon (US Patent No. 6,098,074) filed October

29, 1997, in view of Patterson (US Patent Application No. 2003/0182326) filed

March 19, 2002, further in view of Friske (US Patent No. 6,070,170) filed October 1,

1997, and further in view of Maurer (US Patent Application No. 20030065780) filed

September 27, 2002.

Regarding Claims 1, 37, and 48, Cannon discloses a data management

method, comprising:

using an operating system, operating a source volume of a source device

wherein the source volume includes storage, a plurality of user files stored in said

storage and a file system for locating said user files stored in said storage, said

file system including an address table identifying the location of each file on said

storage device, said operating including said operating system locating said user

files in said storage using said file system and said address table of said file

system (column 3, lines 45-50 and column 8, lines 8-16, Cannon)[1];

backing up contents of the source volume of the source device at a first

client station as at least one object of a database stored in a data storage

subsystem wherein the at least one object represents an image of the contents of

the source volume of the source device (column 13, lines 50-67 and columns 16-

17, lines 55-67 and 1-14, respectively, Cannon);

using the database, tracking attributes and location of the at least one

object in the database (column 7, lines 53-64 and column 9, lines 31-41,

Cannon);

using the at least one object, restoring the contents of the source volume

of the source device from the at least one object (column 14, lines 1-13 and

column 17, lines 18-44, Cannon).

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[1] Examiner Notes: Details about the locating of user files and address table can be found within Cannon
at col.4, lines 41-46 and col.7, lines 53-66.

However, Cannon is not as detailed with respect to restoring the contents to a target file in a file system stored on a storage device so that the target file contains internally within said target file, said contents of the source device including said plurality of files and said file directory of the source device, wherein said file system comprises a plurality of files and an address table identifying the location of each file on said storage device.

On the other hand, Patterson discloses restoring the contents to a target file in a file system stored on a storage device so that the target file contains internally within said target file, image data representing said contents of the source volume including image data representing both said plurality of files and said file system of the source volume within said target file ([0049-0052], Patterson). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Patterson's teachings into the Cannon system. A skilled artisan would have been motivated to combine in order to provide a more optimized system of managing a plurality of different client stations with stored content. Thereby, allowing for a better backup and restorable service.

Therefore, the combination of Cannon in view of Patterson, disclose

copying image data representing the contents of the source volume from the target file to a target volume of a target device so that the target volume contains the restored contents of the source volume (column 14, lines 41-67, Cannon); and

using an operating system, operating the target volume as a volume, including locating said user files in said target volume using said file system of said target volume ([0049-0052], Patterson).

However, the combination of Cannon in view of Patterson are not as detailed with respect to the restoring the contents to at least one record of a target file, and using the target file as a temporary repository for the contents of the source volume including the file system of the source volume.

On the other hand, Friske discloses restoring the contents to at least one record of a target file (column 6, lines 2-13, Friske), and using the target file as a temporary repository for the contents of the source volume including the file system of the source volume (column 6, lines 31-36, Friske). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Friske's teachings into the Cannon and Patterson system. A skilled artisan would have been motivated to combine in order to maintain an ongoing environment for data restoration.

However, Cannon, Patterson, and Friske are not as detailed with respect to the target file has not been mounted to permit using the file system contained within the target file.

On the other hand, Maurer discloses the target file has not been mounted to permit using the file system contained within the target file ([0111],[0141], Maurer). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Maurer's teachings into the Cannon, Patterson,

and Friske system. A skilled artisan would have been motivated to combine in order to allow the system to retrieve the needed information.

Regarding Claims 2, 38, and 49, the combination of Cannon in view of Patterson, further in view of Friske, and further in view of Maurer, disclose the method wherein the target file is stored on storage media at a second client station ([0108-0109], Maurer).

Regarding Claims 3, 39, and 50, the combination of Cannon in view of Patterson, further in view of Friske, and further in view of Maurer, disclose the method wherein the target file is a flat file which contains in a single record of the flat file the image data representing the complete contents of the source volume (column 6, lines 2-13, Friske).

Regarding Claims 5, 40, and 51, the combination of Cannon in view of Patterson, further in view of Friske, and further in view of Maurer, disclose the method wherein the data storage subsystem includes a server coupled to the first client station by a network (column 4, lines 9-20, Cannon).

Regarding Claims 6, 41, and 52, the combination of Cannon in view of Patterson, further in view of Friske, and further in view of Maurer, disclose the method further comprising, using the at least one object, restoring the contents of

the source device from the at least one object to a target device so that the target

device contains the contents of the source device (column 14, lines 1-13 and

column 17, lines 18-44, Cannon).

Regarding Claims 11, 46, and 57, the combination of Cannon in view of

Patterson, further in view of Friske, and further in view of Maurer, disclose the

method wherein said target file is a flat file (column 6, lines 2-13, Friske).

7.   **Claims 10, 12, 45, 47, 56, and 58 are rejected under 35 U.S.C. 103(a) as**

being unpatentable over Cannon (US Patent No. 6,098,074) filed October 29, 1997,

in view of Patterson (US Patent Application No. 2003/0182326) filed March 19,

2002, further in view of Friske (US Patent No. 6,070,170) filed October 1, 1997, and

further in view of Maurer (US Patent Application No. 20030065780) filed

September 27, 2002, and further in view of "Logical vs. Physical File System

Backup", By: Hutchinson, Published: 1999; referred to hereinafter as

'Hutchinson'.

Regarding Claims 10, 45, and 56, the combination of Cannon in view of

Patterson, further in view of Friske, further in view of Maurer, disclose the method

further comprising mounting the source device ([0079], Maurer). However,

Cannon in view of Patterson, further in view of Friske, and further in view of

Maurer, are silent with respect to the source device being a read only device wherein write operations to said source device are prevented during said backing up of said source device. On the other hand, Hutchinson discloses the source device being a read only device wherein write operations to said source device are prevented during said backing up of said source device (pg.3, column 2, 1st full paragraph, Hutchinson). Cannon, Patterson, Friske, Maurer, and Hutchinson are analogous art because they are from the same field of endeavor of system backup/restore. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Hutchinson's teachings into the Cannon, Patterson, Friske, and Maurer system. A skilled artisan would have been motivated to combine as suggested by Hutchinson at pg. 2, column 2, in order to provide system history and increase resilience to disasters, which means that it is important that the format used to store data must be archival in nature. As a result, maximizing the speed for data backup and minimizing the resources that are used in performing the backup.

Regarding Claims 12, 47, and 58, the combination of Cannon in view of Patterson, further in view of Friske, further in view Maurer, and further in view of Hutchinson, disclose the method wherein said copying uses the UNIX dd command (pg.3, 2nd full paragraph, lines 5-9, Hutchinson).

8.   **Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over**

Cannon (US Patent No. 6,098,074) filed October 29, 1997, in view of Patterson (US

Patent Application No. 2003/0182326) filed March 19, 2002, further in view of

Maurer (US Patent Application No. 20030065780) filed September 27, 2002, further

in view of "Logical vs. Physical File System Backup", By: Hutchinson, Published:

1999; referred to hereinafter as 'Hutchinson', and further in view of Friske (US

Patent No. 6,070,170) filed October 1, 1997.

Regarding Claim 59, the combination of Cannon in view of Patterson,

further in view of Maurer, and further in view of Hutchinson, disclose a data

management method, comprising:

using an operating system, operating a source volume of a source device

wherein the source volume includes storage, a plurality of user files stored in said

storage and a file system for locating said user files stored in said storage, said

file system including an address table identifying the location of each file on said

storage device, said operating including said operating system locating said user

files in said storage using said file system and said address table of said file

system (column 3, lines 45-50 and column 8, lines 8-16, Cannon)[2];

mounting the source device ([0079], Maurer) as a read only device

wherein write operations to said source device are prevented during backing up

of said source device ([0010], Patterson; further details about the device being

read-only, thus preventing write operations can be found within columns 17-18,

lines 65-67 and 1-23, respectively; Hitz (incorporated by reference into

Patterson));

backing up the complete contents of the source volume of the source

device at a first client station as at least one object of a database stored in a data

storage subsystem which includes a server coupled to the first client station by a

network wherein the at least one object represents an image of the contents of

the source volume of the source device (column 4, lines 9-20 and column 13,

lines 50-67 and columns 16-17, lines 55-67 and 1-14, respectively, Cannon);

using the database, tracking attributes and location of the at least one

object in the database (column 7, lines 53-64 and column 9, lines 31-41,

Cannon).

However, the combination of the references are not as detailed with

determining that a target device is not available; and in response to said

determination that said target device is not available, using the at least one

object, restoring the contents of the source volume of the source device from the

at least one object to single record of a flat target file in a file system stored on a

storage device at a second client station instead of to a volume being operated

as a volume by an operating system so that the single record of the flat target file

contains internally within said single record of the flat target file.

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[2] Examiner Notes: Details about the locating of user files and address table can be found within Cannon
at col.4, lines 41-46 and col.7, lines 53-66.

On the other hand, Friske discloses determining that a target device is not available (column 2, lines 53-67, Friske); and in response to said determination that said target device is not available, using the at least one object, restoring the contents of the source volume of the source device from the at least one object to a single record of a flat target file in a file system stored on a storage device at a second client station instead of to a volume being operated as a volume by an operating system so that the single record of the flat target file contains internally within said single record of the flat target file (column 6, lines 2-13, Friske). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Friske's teachings into the Cannon, Patterson, Maurer, and Hutchinson system. A skilled artisan would have been motivated to combine in order to maintain an ongoing environment for data restoration.

Therefore, the combination of Cannon in view of Patterson, further in view of Maurer, further in view of Hutchinson, and further in view of Friske, disclose

using an operating system, using the target file as a temporary repository for the contents of the source volume including the file system of the source volume (column 6, lines 31-36, Friske), in which the target file has not been mounted to permit using the file system contained within the flat target file ([0111],[0141], Maurer);

copying image data representing the complete contents of the source volume from the flat target file to a target volume of said target device when available so that the target volume contains the complete restored contents of

the source volume including said plurality of files of the source device and said

file directory of the source volume (column 14, lines 41-67, Cannon), using the

UNIX dd command (pg.3, 2nd full paragraph, lines 5-9, Hutchinson); and

using an operating system, operating the target volume as a volume,

including locating said user files in said target volume using said file system of

said target volume ([0049-0052], Patterson).

Response to Arguments

Applicant argues, Patterson does not disclose restoring a plurality of files

and file directory of the source device to a target file, because Patterson makes

clear that the file systems are merged into a single file system and volume.

Examiner respectfully disagrees. To begin, Cannon was relied upon for the

source volume includes storage, a plurality of user files and file directory (see column 3,

lines 45-50 and column 8, lines 8-16. Patterson was incorporated to teach the restoring

portion of the claim language (see par [0049-0052]). Thus, it is the combination of the

references that were relied upon for the disclosure of the above argued feature.

Applicant argues, Friske does not disclose restoring the contents to at

least one record of a target file, because Friske's restoring does not require

"including image data representing both said plurality of files and said file system

of the source volume within said at least one record of said target file".

Examiner respectfully disagrees. In response to applicant's arguments against

the references individually, one cannot show nonobviousness by attacking references

individually where the rejections are based on combinations of references. See *In re*

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091,

231 USPQ 375 (Fed. Cir. 1986). In particular, it is the combination of Cannon,

Patterson, and Friske that were relied upon for the disclosure of the above argued

features.

Applicant argues Maurer fail to teach wherein a target file is a flat file.

Examiner respectfully disagrees. Friske was relied upon for the disclosure of the

target file being a flat file (see column 6, lines 2-13, Friske). However, for arguments

sake, the examiner still believes that wherein a map of the logical information to

physical devices on the source computer is created in the form of a flat file. Then, the

map is used to build a substantially identical logical configuration on the target

computer. Since the system allows for the information to be created and stored in the

form of a flat file and the flat file format along with the information is backed up from the

source computer to the target computer. When the restoring process occurs, the

information that has been backed up is still within the flat file formation and is therefore

manipulated as such. Also, as an alternative example, paragraph [0102] of the Maurer

reference, further disclose using the flat file to map the volume information from one

computer system to another. Again, since the information being mapped is within a flat

file when the process of backing up the system and restoring the system occurs

(paragraphs [0103] and [0110]) the information is maintained in the flat file format.

Applicant argues, Maurer does not teach using the Unix "dd" command.

Examiner respectfully disagrees. The Hutchinson reference was relied upon for

the disclosure of copying using the UNIX dd command (see pg.3, 2nd full paragraph,

lines 5-9). Thus, applicant's argument is deemed invalid.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant

is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Points of Contact

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to CHELCIE DAYE whose telephone number is (571) 272-

3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye
Patent Examiner
Technology Center 2100
January 29, 2011

/Apu M Mofiz/
Supervisory Patent Examiner, Art Unit 2161